CHAPTER 21

Managing the Internal Gatekeeper in Network Manager

How to Manage Services

Viewing Internal Gatekeeper Supported Services

The Services tab displays the list of predefined and online services supported by the internal gatekeeper selected in the tree.

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Services**.

Table 21-1 describes the information displayed on the Services tab.

Table 21-1 Services Tab Parameters

Parameter	Description
Prefix	Prefix used to access the service
Description	Service description
Status	Whether the service is predefined or online (meaning, service status)
Conference Hunting	Whether conference hunting is enabled for the service
In-Zone Default	Default policy for in-zone endpoints
Out of ZoneS	Service policy for out-of-zone endpoints

Creating or Modifying a Service

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Services**.

Step 4 Do one of the following to modify an existing service:

- Double-click the service you require.
- Select the service you require and click **Edit**.
- Right-click the service you require and select **Edit**.

Step 5 Do one of the following to create a new service:

- Click **Add**.
- Right-click any existing service and select **Add**.

Step 6 Enter the prefix used to access the service.

Step 7 Select the service type.

Step 8 Enter a description of the service.

Step 9 Select whether to enable conference hunting.

Step 10 Select whether to allow access to in-zone endpoints.

Step 11 Select whether to allow access to out-of-zone endpoints.

Step 12 Click **OK** to save your changes.

Viewing Global Services

The Global Services tab displays the list of global services which can be configured for the selected internal gatekeeper.

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Global Services**.

Table 21-2 describes the information displayed on the Global Services tab.

Table 21-2 Global Services Tab Parameters

Parameter	Description
Prefix	Prefix used to access the service
Description	Service description
Central Database	Indicates whether or not the global service was retrieved from the central database.

Creating or Modifying a Global Service

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Global Services**.

Step 4 Do one of the following to modify an existing global service:

- Double-click the service you require.
- Select the service you require and click **Edit**.
- Right-click the service you require and select **Edit**.

Step 5 Do one of the following to create a new global service:

- Click **Add**.
- Right-click any existing service and select **Add**.

Step 6 Enter the prefix used to access the service.

Step 7 Enter a description of the service.

Step 8 Click **OK** to save your changes.

Removing a Service

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Services** or **Global Services**.

Step 4 Do one of the following:

- Select the service you require and click **Delete**.
- Right-click the service you require and select **Delete**.

Step 5 Click **OK** to save your changes.

The service is removed from the database.

How to Manage Prefixes

The Prefixes tab enables you to assign prefixes to local and remote Cisco IOS H.323 Gatekeeper zones, configure the method for sending LRQ messages to each destination for address resolution and assign gateway priorities.

- Creating or Modifying a Prefix, page 21-4
- Removing a Prefix, page 21-5

Creating or Modifying a Prefix

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Prefixes**.

Step 4 Select the prefix you require and click **Edit** to modify an existing prefix.

Step 5 Click **Add** to create a new prefix.

Step 6 Configure prefixes with which the Cisco IOS H.323 Gatekeeper performs address resolution, sends LRQ messages simultaneously and configures gateway priorities per zone.

Step 7 (Optional) Select a zone, enter a prefix number and select **Blast** to send LRQ messages simultaneously.

Step 8 Click **Upload** to save your changes to the internal gatekeeper database.

Removing a Prefix

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Prefixes**.

Step 4 Select the prefix you require and click **Delete**.

Step 5 Click **Yes** to remove the prefix from the internal gatekeeper database.

How to Configure a Parent Gatekeeper

The internal gatekeeper sends an LRQ to the parent gatekeeper when the zone prefix of the call matches one of the defined parent filters. If the internal gatekeeper fails to match the zone prefix of the call with any of the defined parent filters, the internal gatekeeper either rejects the call or forwards the call according to the Call Fallback settings configured in the internal gatekeeper element manager. Where no filters are defined, the internal gatekeeper passes the call to the parent gatekeeper. The internal gatekeeper allows a maximum of ten parent filters.

- Enabling the Parent Tab, page 21-5
- Adding a Parent Manually, page 21-5
- Adding a Parent Automatically, page 21-6

Enabling the Parent Tab

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Configure**.

Step 4 Select **Version 2** in the Dial plan version field.

Step 5 Ensure that Use Central Database is unselected.

Step 6 Click **Upload** to save your changes.

Adding a Parent Manually

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Parent**.

Step 4 Check **Enabled**.

Step 5 Enter the IP address, port number and description of the parent gatekeeper in the relevant fields.

Step 6 (Optional) Add a parent filter.

Step 7 Click **Upload** to save your changes.

Adding a Parent Automatically

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Drag and drop the internal gatekeeper element into the zone of the gatekeeper you wish to configure as the parent gatekeeper.

The internal gatekeeper Parent tab is automatically updated with the parent gatekeeper details.

How to Manage Parent Filters

Creating or Modifying a Parent Filter

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Parent**.

Step 4 Locate the Parent Filters section.

Step 5 Select the parent filter you require and click **Edit** to modify an existing parent filter.

Step 6 Click **Add** to create a new parent filter.

Step 7 Enter a name for the parent filter and click **OK**.

Step 8 Click **Upload** to save the filter to the internal gatekeeper database.

Removing a Parent Filter

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Parent**.

Step 4 Locate the Parent Filters section.

Step 5 Select the parent filter you require and click **Delete**.

Step 6 Click **Yes** to remove the filter from the internal gatekeeper database.

How to Configure a Child Gatekeeper

Enabling the Children Tab

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Configure**.

Step 4 Select **Version 2** in the Dial plan version field.

Step 5 Ensure that Use Central Database is unselected.

Step 6 Click **Upload** to save your changes.

Viewing Child Gatekeepers

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Children**.

Table 21-3 describes the information displayed on the Children tab.

Table 21-3 Children Tab Parameters

Parameter	Description
Description	Displays the child gatekeeper description in free text.
Prefixes	Displays the zone prefix.
IP Address	Displays the IP address of the child gatekeeper.
Port	Displays the port number of the child gatekeeper.
Proxy	Indicates whether or not the internal gatekeeper routes calls from this zone to the neighbor gatekeeper through the Cisco Proxy.
Central Database	Indicates whether or not the child gatekeeper was retrieved from the central database.

Adding a Child Manually

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Children**.

Step 4 Click **Add**.

Step 5 Enter the IP address, port number and description of the parent gatekeeper in the relevant fields.

Step 6 (Optional) Select **Use Cisco Proxy** to route calls from this zone to the neighbor gatekeeper via the Cisco Proxy.

Step 7 Add required prefixes from the list of defined child prefixes.

The internal gatekeeper sends an LRQ to the child gatekeeper when the zone prefix of the call matches one of the defined child prefixes. If the internal gatekeeper fails to match the zone prefix of the call with any of the defined child gatekeeper prefixes, the internal gatekeeper passes the call to a neighbor gatekeeper.

Step 8 Click **Upload** to save your changes to the internal gatekeeper database.

Adding a Child Automatically

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Drag and drop the internal gatekeeper element you wish to configure as the child gatekeeper into the zone of the current internal gatekeeper.

The Children tab of the parent internal gatekeeper is automatically updated with the child gatekeeper details.

How to Manage Child Prefixes

Creating or Modifying a Child Prefix

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Children**.

Step 4 Open the required child gatekeeper profile.

Step 5 Select the prefix you require and click **Edit** to modify an existing prefix.

Step 6 Click **Add** to create a new prefix.

Step 7 Enter a name for the prefix and click **OK**.

Step 8 Click **Upload** to save the prefix to the internal gatekeeper database.

Removing a Child Prefix

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Children**.

Step 4 Open the required child gatekeeper profile.

Step 5 Select the prefix you require and click **Delete**.

Step 6 Click **Yes** to remove the prefix from the internal gatekeeper database.

How to Configure a Neighbor

Under the recommended Cisco architecture, configure the Cisco Unified Videoconferencing Manager internal gatekeeper as the neighbor of external Cisco IOS Gatekeeper(s).

For more information, refer to the Cisco Unified Videoconferencing Solution Reference Network Design (SRND) Guide at http://cisco.com/en/US/docs/video/cuvc/design/guides/srnd/vc5xsrnd.html.

Viewing Neighbor Gatekeepers

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Neighbors**.

Table 21-4 describes the information displayed on the Neighbors tab.

Table 21-4 Neighbors Tab Parameters

Parameter	Description
Description	Displays the neighbor gatekeeper description.
Prefix	Displays the zone prefix.
ID Address	Displays the neighbor gatekeeper IP address.
Port	Displays the port number of the neighbor gatekeeper.
Proxy	Indicates whether or not the internal gatekeeper routes all calls from this zone to the neighbor gatekeeper through the Cisco Proxy.
GK ID	Displays the neighbor gatekeeper identifier.
Central DB	Indicates whether or not the neighbor gatekeeper was retrieved from the central database.
LDAP	Indicates whether or not the neighbor gatekeeper was retrieved from the LDAP server.

Adding or Modifying a Neighbor Gatekeeper

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Neighbors**.

Step 4 Do one of the following to modify an existing neighbor gatekeeper:

- Double-click the internal gatekeeper you require.
- Select the internal gatekeeper you require and click **Edit**.
- Right-click the internal gatekeeper you require and select **Edit**.

Step 5 Do one of the following to create a new service:

- Click **Add**.
- Right-click any existing internal gatekeeper and select **Add**.

Step 6 Enter the neighbor gatekeeper zone prefix.Enter the description, IP address and port number of the neighbor gatekeeper in the relevant fields.

Step 7 (Optional) Select **Use Cisco Proxy** to route calls from this zone to the neighbor gatekeeper via the Cisco Proxy.

Step 8 Click **Upload** to save your changes to the internal gatekeeper database.

How to Manage Zones

Creating or Modifying a Local Zone

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Local Zones**.

Step 4 Select the zone you require and click **Edit** to modify an existing local zone.

Step 5 Click **Add** to create a new local zone.

Step 6 Enter a zone name and the zone domain.

Step 7 Click **Upload** to save your changes to the internal gatekeeper database.

Creating or Modifying a Remote Zone

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Remote Zones**.

Step 4 Select the zone you require and click **Edit** to modify an existing remote zone.

Step 5 Click **Add** to create a new remote zone.

Step 6 Enter a zone name, zone domain, IP address and port.

Step 7 Click **Upload** to save your changes to the internal gatekeeper database.

Removing a Zone

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Local Zones** or **Remote Zones**.

Step 4 Select the zone you require and click **Delete**.

Step 5 Click **Yes** to remove the zone from the internal gatekeeper database.

How to Manage Bandwidth Rules

The BW Rules tab enables you control the bandwidth of H.323 traffic both in the Cisco IOS H.323 Gatekeeper zone and between the Cisco IOS H.323 Gatekeeper and other zones. Bandwidth rules per session or specific zones can also be specified. A default setting specifies a bandwidth rule for all zones with which the Cisco IOS H.323 Gatekeeper operates.

- Viewing Bandwidth Rules, page 21-12
- Creating or Modifying a Bandwidth Rule, page 21-13
- Removing a Bandwidth Rule, page 21-13

Viewing Bandwidth Rules

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **BW Rules**.

Table 21-5 describes the information displayed on the BW Rules tab.

Table 21-5 BW Rules Tab Parameters

Parameter	Description
Scope	
Total	Indicates the total amount of bandwidth for H.323 traffic allowed in this zone.
Remote	Indicates the total amount of bandwidth for H.323 traffic from this zone to all other zones.
Interzone	Indicates the total amount of bandwidth for H.323 traffic from this zone to another zone.
Session	Indicates the maximum bandwidth allowed for a session in the zone.
Default	Indicates the default value for all zones is configured in this rule.

Creating or Modifying a Bandwidth Rule

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **BW Rules**.

Step 4 Select the rule you require and click **Edit** to modify an existing bandwidth rule.

Step 5 Click **Add** to create a new bandwidth rule.

Step 6 Select the scope of the bandwidth rule, indicate whether the rule is the default for all zones, select a zone and maximum bandwidth rate.

Step 7 Click **Upload** to save your changes to the internal gatekeeper database.

Removing a Bandwidth Rule

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **BW Rules**.

Step 4 Select the bandwidth rule you require and click **Delete**.

Step 5 Click **Yes** to remove the bandwidth rule from the internal gatekeeper database.

How to Manage Debug Flags

Creating or Modifying a Debug Flag

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Debug Flags**.

Step 4 Select the flag you require and click **Edit** to modify an existing debug flag rule.

Step 5 Click **Add** to create a new debug flag.

Step 6 Enter the debug flag name, a description and enable the flag.

Step 7 Click **Upload** to save your changes to the internal gatekeeper database.

Caution Too many debug flags may inhibit the performance of the Cisco IOS H.323 Gatekeeper on the network.

Removing a Debug Flag

Procedure

Step 1 Click **Network Tree** in the sidebar menu.

Step 2 Select the internal gatekeeper you require in the tree.

Step 3 Click **Debug Flags**.

Step 4 Select the debug flag you require and click **Delete**.

Step 5 Click **Yes** to remove the debug flag from the internal gatekeeper database.

- Gatekeeper enabled (no shutdown)—When selected, enables the Cisco IOS H.323 Gatekeeper.
- GKTMP port—The port via which the Network Manager communicates with the Cisco IOS H.323 Gatekeeper using the GKTMP communication protocol to get calls and registration information from the Cisco IOS H.323 Gatekeeper.